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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/766,463	01/28/2004	Christian Rembe	LBP-PT033	3164
3624	7590	10/06/2005	EXAMINER	
VOLPE AND KOENIG, P.C. UNITED PLAZA, SUITE 1600 30 SOUTH 17TH STREET PHILADELPHIA, PA 19103				CHISDES, SARAH J
ART UNIT		PAPER NUMBER		
				2877

DATE MAILED: 10/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/766,463	REMBE ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Sarah J. Chisdes	2877	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 06 July 2004.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-9 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-9 is/are rejected.  
 7) Claim(s) 5 and 6 is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/6/2004</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

The Information Disclosure Statement was received on July 6, 2004 and placed of record in the file. Initialed, signed, and dated copies of both pages accompany this Office Action.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 and 2 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the field lens (1,2)" in line 10 and claim 2 recites the limitation "the field lens (1,2)" in line 1. There is insufficient antecedent basis for these limitation in the claim. If applicant intends to refer to only one of the two field lenses, please specify which, or refer to the two field lenses in the plural. Examiner assumes that the plural was intended and has examined the claims accordingly.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 and 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewin (US 6,084,672), in view of Smith (Modern Optical Engineering, 1966, pp 212-213), in further view of admitted prior art (specification paragraph 5, lines 8-9).

Regarding claim 1, Lewin discloses an optical assembly for mounting on a microscope via the camera mount (column 2 lines 18-19) comprising a beam splitter (element 8 of Figure 1) for coupling light into the beam path, an imaging lens system (focusing lenses 14 and 15 of Figure 1), and a camera (element 16 of Figure 1) mounted above the imaging system. Lewin does not disclose the use of two field lenses, on either side of the beam splitter and the imaging lens system. Smith teaches that field lenses are used to increase the field of view and reduce vignetting. It would have been obvious to one of ordinary skill in the art at the time of invention to use a pair of field lenses in the optical system of Lewin in order to increase the amount of light transmitted to the camera, increase the field of view so precise placement of the object under study is less critical, and improve the quality of the camera image by reducing vignetting. Lewin in view of Smith discloses all the elements of claim 1, but does not disclose that the light coupled into the beam path comes from a stroboscope lamp. Applicant discloses in the specification (paragraph 5 lines 8-9) that a stroboscope lamp is commonly used with a microscope for analysis of micro-devices. It would have been obvious to one of ordinary skill in the art at the time of invention to provide a stroboscope lamp in the combination of Lewin and Smith in order to facilitate analysis of devices that move on a time scale too fast for the camera to be able to record an image.

Art Unit: 2877

Claims 2, 3, 7, and 8 depend on claim 1, and do not add any additional elements, but specify choosing dimensions and arrangements of the elements of claim 1 to improve the quality of the image. The references are silent as to specific arrangements to produce an optimized image, but it is obvious that components would be configured to optimize the image. It would have been obvious to one of ordinary skill in the art to configure the field lenses to produce a sharp image (claim 2), to use Kohler illumination to evenly illuminate the sample (claim 3), to configure the lens imaging system to produce an aberration-free image (claim 7), and to arrange the field lenses to prevent vignetting (claim 8), to yield a sharp, bright, aberration-free and vignette-free image.

Claims 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Lewin, Smith, and applicant's admission as applied to claim 1 above, and further in view of Nishida (US 6,157,484). The combination of Lewin, Smith, and applicant's admission discloses all the elements of claim 1, as set forth above, but fails to disclose that the stroboscope lamp be part of the optical assembly. In Figure 2 of Nishida, element 6 is a light assembly which is an integral part of the attachment to the microscope. Nishida therefore teaches that it is known in the art for a light source to be an integral part of a microscope attachment. It would have been obvious to one of ordinary skill in the art at the time of invention to include the light source as part of the optical assembly of Lewin, Smith, and admission, as done by Nishida, in order to make the optical assembly easier to use by not having to attach and align a light source every time the optical assembly is used.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Lewin, Smith, applicant's admission (specification paragraph 5, lines 8-9, and paragraph 6 lines

Art Unit: 2877

1-3) and Nishida (US 6,157,484). In Figure 2, Lewin discloses modular system for measuring periodic movements of a microstructure with a microscope (element 3), a light source (element 2), and a camera (element 16). The optical assembly according to claim 1, has been rejected as being unpatentable over Lewis, Smith, and applicants admission, as set forth above in regard to claim 1. The use of a stroboscope lamp as an integral part of the optical assembly in combination with the elements of claim 1 has been rejected as unpatentable as set forth above in regard to claim 4. All the elements of claim 9 have been rejected as previously disclosed except for the inclusion of a scanning vibrometer in the modular system. In the present specification, paragraph 6, lines 1-3), applicant discloses that scanning vibrometers for mounting on a microscope are readily available. It would have been obvious to one of ordinary skill in the art at the time of invention to include a scanning vibrometer in the modular system to facilitate the measurement of periodic movements.

***Allowable Subject Matter***

Claims 5 and 6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:  
Regarding claim 5, LEDs are well-known in the art and described by many practitioners but no one describes the relationship of the aperture angle to the diameter of the phosphor surface as crucial, and specifies that the product of the two be less than 0.5.

Claim 6 on its own does not contain patentable subject matter (Weber et al. US 6,859,282, discloses a commercially available LED which outputs 60mW in column 10 lines 53-

55), but would be allowable because it depends on an allowable claim.

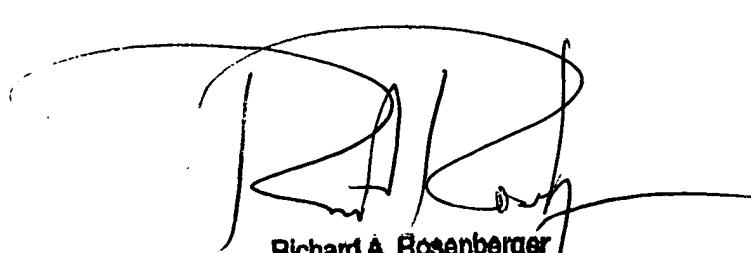
***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sarah J. Chisdes whose telephone number is 571-272-8540. The examiner can normally be reached on 8am -5:30pm Monday through Thursday and 8am-4:30pm on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley Jr. can be reached on 571-272-2800 ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*je*  
S.J. Chisdes, Ph.D.  
September 29, 2005

  
Richard A. Rosenberger  
Primary Examiner